

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application.

1. (Currently Amended) A method of replicating data objects from a source system to a target system, comprising:

creating an electronic data element comprising a first field having an identifier and a second field having a state of the identifier, wherein the state of the identifier ~~may be~~ is set to one of the following states:

- a) a first state, in which said electronic data element ~~may be~~ accessed is accessible by one or more data object processing operations and whereby said identifier is assignable to one or more data objects stored in a memory,
- b) a second state, in which said electronic data element ~~may not be~~ accessed is not accessible by one or more data object processing operations and whereby said identifier is assignable to one or more data objects stored in a memory,
or and
- c) a third state, in which said electronic data element ~~may not be~~ accessed is not accessible by one or more data object processing operations and whereby said identifier is not assignable to one or more data objects stored in a memory;

setting the state of the identifier to the first state;

assigning, after setting the state of the identifier to the first state, the identifier to

one or more data objects stored in a memory of the source system;

processing, by one or more data object processing operations, the one or more

assigned data objects while the identifier is set to the first state;

changing the state of the identifier from the first state to the second state while at

least some of the one or more assigned data objects are being processed

by the one or more data object processing operations;

changing the state of the identifier to the third state when the one or more

assigned data objects are finished being processed by the one or more

data object processing operations; and

assigning a state to the identifier; and

replicating, after changing the state of the identifier to the third state, the one or

more assigned data objects from a the memory in the source system to a

memory in the target system, if the state of the identifier is the third state.

2. (Original) The method of claim 1, further comprising storing the one or more assigned data objects prior to replicating the one or more assigned data objects.

3. (Canceled)

4. (Currently Amended) The method of claim-3 2, further comprising setting, upon a commit of the storing of the one or more data objects, the state of the identifier ~~second field of the electronic data element is set to the third state.~~

5. (Currently Amended) A system for avoiding data loss in a data object replication process, comprising:

a source memory;

a target memory; and

a microprocessor coupled to the source and target memories and programmed to:

create an electronic data element comprising a first field having an

identifier and a second field having a state of the identifier, wherein

the state of the identifier ~~may be~~ is set to one of the following states:

a) a first state, in which said electronic data element ~~may be accessed~~ is accessible by one or more data object processing operations and whereby said identifier is assignable to one or more data objects stored in a memory,

b) a second state, in which said electronic data element ~~may not be accessed~~ is not accessible by one or more data object processing operations and whereby said identifier is assignable to one or more data objects stored in a memory, and ~~or~~

c) a third state, in which said electronic data element ~~may~~
~~not be accessed~~ is not accessible by one or more
data object processing operations and whereby said
identifier is not assignable to one or more data objects
stored in a memory;

set the state of the identifier to the first state;

assign, after setting the state of the identifier to the first state, the identifier
to one or more data objects stored in the source memory;

process, using one or more data object processing operations, the one or
more assigned data objects while the identifier is set to the first
state;

change the state of the identifier to the second state while at least some of
the one or more assigned data objects are being processed by the
one or more data object processing operations;

change the state of the identifier to the third state when the one or more
assigned data objects are finished being processed by the one or
more data object processing operations; and

~~assign a state to the identifier; and~~

replicate, after changing the state of the identifier to the third state, the one
or more assigned data objects from the source memory to the
target memory, if the state of the identifier is the third state.

6. (Original) The system of claim 5, wherein the microprocessor is further programmed to store the one or more assigned data objects prior to replicating the one or more assigned data objects.

7. (Canceled)

8. (Currently Amended) The system of claim ~~7~~ 6, wherein the microprocessor is further programmed to set, upon a commit of the storing of the one or more data objects, the state of the ~~second field of the electronic data element is set~~ identifier to the third state.

9. (Currently Amended) A system for replicating data objects from a source system to a target system, the system comprising:

means for creating an electronic data element comprising a first field having an identifier and a second field having a state of the identifier, wherein the state of the identifier ~~may be~~ is set to one of the following states:

a) a first state, in which said electronic data element ~~may be~~

~~accessed~~ is accessible by one or more data object

processing operations and whereby said identifier is

assignable to one or more data objects stored in a memory,

b) a second state, in which said electronic data element ~~may not be~~

~~accessed~~ is not accessible by one or more data object

processing operations and whereby said identifier is

assignable to one or more data objects stored in a memory,

~~or~~ and

c) a third state, in which said electronic data element ~~may not be~~

~~accessed~~ is not accessible by one or more data object

processing operations and whereby said identifier is not

assignable to one or more data objects stored in a memory;

means for setting the state of the identifier to the first state;

means for assigning, after setting the state of the identifier to the first state, the

identifier to one or more data objects stored in a memory of the source

system;

means for processing, by one or more data object processing operations, the one

or more assigned data objects while the identifier is set to the first state;

means for changing the state of the identifier to the third state when the one or

more assigned data objects are finished being processed by the one or

more data object processing operations;

means for changing the state of the identifier from the first state to the second

state while at least some of the one or more assigned data objects are

being processed by the one or more data object processing operations;

~~means for assigning a state to the identifier; and~~

means for replicating, after changing the state of the identifier to the third state,

the one or more assigned data objects from a the memory in the source

system to a memory in the target system, ~~if the state of the identifier is the~~

~~third state.~~

Please add the following new claim 10:

10. (New) A computer-readable medium storing instructions for execution by a processor for performing a method of replicating data objects from a source system to a target system, the method comprising:

creating an electronic data element comprising a first field having an identifier and a second field having a state of the identifier, wherein the state of the identifier is set to one of the following states:

- a) a first state, in which said electronic data element is accessible by one or more data object processing operations and whereby said identifier is assignable to one or more data objects stored in a memory,
- b) a second state, in which said electronic data element is not accessible by one or more data object processing operations and whereby said identifier is assignable to one or more data objects stored in a memory, and
- c) a third state, in which said electronic data element is not accessible by one or more data object processing operations and whereby said identifier is not assignable to one or more data objects stored in a memory;

setting the state of the identifier to the first state;

assigning, after setting the state of the identifier to the first state, the identifier to one or more data objects stored in a memory of the source system;
processing, by one or more data object processing operations, the one or more assigned data objects while the identifier is set to the first state;
changing the state of the identifier from the first state to the second state while at least some of the one or more assigned data objects are being processed by the one or more data object processing operations;
changing the state of the identifier to the third state when the one or more assigned data objects are finished being processed by the one or more data object processing operations; and
replicating, after changing the state of the identifier to the third state, the one or more assigned data objects from the memory in the source system to a memory in the target system.